

Bonneville Dam

Columbia River, Multnomah Co, Oregon

Northwestern Division (CENWD)
Portland District

First Powerhouse

Unit 0

Turbine Type: Kaplan

Turbine Manufacturer: S. Morgan Smith

Horsepower: 5,000 RPM: 257 Rated Head: 50 feet

Generator Manufacturer: Elec. Mach. Corp.

Generator Rated KVA: 5,000
Generator Rated PF: 80%
Generator Rated KW: 4,000
Generator Max. KW: Generator Rated KV: 2.4

Unit 1

Turbine Type: Kaplan

Turbine Manufacturer: S. Morgan Smith

Horsepower: 66,000 RPM: 75 Rated Head: 50 feet

Generator Manufacturer: General Electric

Generator Rated KVA: 48,000 Generator Rated PF: 90% Generator Rated KW: 43,200 Generator Max. KW: 49,680 Generator Rated KV: 13.8

Unit 2

Turbine Type: Kaplan

Turbine Manufacturer: S. Morgan Smith

Horsepower: 66,000 RPM: 75 Rated Head: 50 feet

Generator Manufacturer: General Electric (Rewound by National Electric Coil

circa 1976)

Generator Rated KVA: 54,240 **Generator Rated PF:** 95% **Generator Rated KW:** 51,500

Generator Max. KW: 56,400 (shaft limited)

Generator Rated KV: 13.8

Units 3 - 6

Turbine Type: Kaplan

Turbine Manufacturer: S. Morgan Smith

Horsepower: 74,000 **RPM:** 75 **Rated Head:** 60 feet

Generator Manufacturer: General Electric

Generator Rated KVA: 60,000 Generator Rated PF: 95% Generator Rated KW: 54,000 Generator Max. KW: 62,100 Generator Rated KV: 13.8

Units 7 - 10

Turbine Type: Kaplan

Turbine Manufacturer: S. Morgan Smith

Horsepower: 74,000 RPM: 75 Rated Head: 60 feet

Generator Manufacturer: General Electric (Rewound circa 1970, U10 rewound

1958)

Generator Rated KVA: 60,000 Generator Rated PF: 95% Generator Rated KW: 54,000 Generator Max. KW: 62,100 Generator Rated KV: 13.8

Second Powerhouse

Units 11 - 18

Turbine Type: Kaplan

Turbine Manufacturer: Allis-Chalmers

Horsepower: 105,000 RPM: 69.2 Rated Head: 52 feet

Generator Manufacturer: General Electric

Generator Rated KVA: 70,000
Generator Rated PF: 95%
Generator Rated KW: 66,500
Generator Max. KW: 66,500
Generator Rated KV: 13.8

Units F1 - F2

Turbine Type: Kaplan

Turbine Manufacturer: Sulzer/Escher-Wyss

Horsepower: 20,700 **RPM:** 156.5 **Rated Head:** 59 feet

Generator Manufacturer: Westinghouse

Generator Rated KVA: 13,800 Generator Rated PF: 95% Generator Rated KW: 13,110 Generator Max. KW: 13,110 Generator Rated KV: 13.8